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The Office action of January 9, 2008, has been carefully considered and reconsideration of the amended application is earnestly solicited.

The amendments in the claims are intended to correct a few minor errors and to assure protection for some previously overlooked patentable matter. The amended Claim 5 is believed to overcome the 35 USC § 112 objection of the Office action.

As to the double patenting objection relating to claims of our copending application, please note that these claims have been revised in a recently submitted amendment and that the finally allowable form of these claims is subject to further changes. It is therefore requested that the double patenting rejection be temporarily waived, subject to reconsideration after the claims of both applications are found to be otherwise allowable.

As to the rejections based on 35 USC § 102, please note that the cited Bentley patent does not disclose any particular type of electrostatic precipitation but rather pertains to the use of "baffled separators" to collect a liquid effluent containing "solid material removed from the gas and gaseous material which reacted with the liquid or was absorbed by the liquid" (Bentley's Abstract, Lines 2-7, or his Summary, Column 1, Lines 47-53). There is no discharge or collector electrode shown in any of Bentley's figures or in their accompanying disclosure. Bentley's briefly mentioned "electrostatic precipitator" is not included in the main system of Fig. 1 but only appears near the exit of Fig. 3, serving no other purpose than to remove "droplets of mist still remaining in the gas stream" (Column 3, Lines 33-35). The cryptic wording "electrostatic precipitator" does not in any way imply a tubular collector electrode or the "co-axial spiked wire- or rod-shaped discharge electrode" of our basic claims 1 and 5.

As to the rejection of our claims 2, 3, 6, and 7 based on Bentley's following sentence: "A mist created by a piezoelectric ultrasonic transducer is contacted with the gas and both gas and mist are passed through baffled separators" (Column 1, Lines 47-50), it must be noted that the sentence refers explicitly to "baffled separators" and not to any collector electrode tube and that the function of Bentley's mist is not to wet any inner walls but rather to react with or absorb solid and gaseous materials from the gas stream (Column 1, Lines 51-53).

As to the rejection of our claims 4 and 8 based on the same cited sentence, please note that nothing in that sentence deals with or discloses "generating and transmitting ultrasonic waves across the interface between said tube and said liquid film so as to help transfer particles or biological cells adhering to the tube surface from said surface into said film." Neither seems to be there any relevance of our claim 8 to the cited "Column 2, lines 60-64" which reads as follows:

"As the gas and mist pass through separation zone 12, mist droplets agglomerate to sizes too large to be carried by the gas stream through zone 12 and space 30 and into separation zone 13. These droplets of liquid collect in the reservoir 16."

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Since this citation does not in any way relate to ultrasonic waves, we conclude that it constitutes a typographical error.

As to the objection to claim 9 based on Bentley's electrostatic precipitator, it is noted that the electrodes in electrostatic precipitators need not be tubular or cylindrical but may be configured instead like parallel sheets and there is nothing in Bentley's disclosure to indicate a tubular design. Attention is also invited to the currently amended version of claim 9.

As to the objection to claim 12, we again find no mention of "an electrostatic precipitation-based aerosol collector" in Bentley's Summary of Invention or Column 2, Lines 10-17. The "piezoelectric ultrasonic transducer" found in these citations serves to generate mist particles but not to capture them. However, claim 12 has been amended to replace the wording "sub-micron-size" by "as small as 0.01 micron in size" which conforms with Line 2 of Paragraph [0008] of our specification. Since the mist droplets generated by Bentley's transducer were at least 10 times larger, 0.1 to 10 microns (Column 5, Lines 23-25), the amended claim overcomes any possible objection based on Bentley's patent.


As to the objection to claims 12 and 13 based on Bentley's Column 1, Lines 29-36, there is no mention in the cited lines of particles "as small as 0.01 micron in size". The size of Bentley's "pollen... and other micro-organisms in the atmosphere" is typically 1 micron or larger.

It is therefore believed that the amended claims overcome the objections based on 35 USC § 102.

As to the rejections of claims 10 and 11 based on 35 USC § 103, since the argument that "Bentley et al. teaches the apparatus of Claim 1" has been refuted above, any rejection based on that argument must be similarly invalidated.

It is therefore requested that the amended claims be found to be allowable.

Respectfully submitted by,

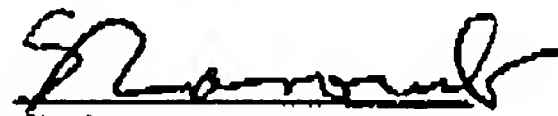

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CERTIFICATION OF FAXING

The undersigned hereby certifies that this response is about to be transmitted to fax number 571-273-8300 on or about March 12, 2008.


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